UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,854	09/18/2003	Detlef Fehrer	7395-000003	5773

27572	7590	01/10/2005

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 828
BLOOMFIELD HILLS, MI 48303

EXAMINER
HARTMAN JR, RONALD D

ART UNIT	PAPER NUMBER
2121	

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *12/14/2004 via facsimile transmission*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *13-26* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *13-26* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *11/24/2003*.

4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. *12/06/04*.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-12 were canceled and claims 13-26 are newly presented.

Claim Objections

2.   Claims 16 and 17, line 3, insert "to be" in between "is" and "implemented".

Claim 17 is objected to because it claims a selection unit that "manually" selects
an engine, and since it appears that the selection unit is computer hardware, the
examiner is unsure as to how the computer hardware will actually make a manual
selection since a human operator is needed to make an actual manual selection, not
computer hardware, per se. Therefore, this claim has been interpreted to essentially
claim the same features as claimed by way of pending claim 18 in which a selection is
made, the selection being made by a means disposed in the electronic apparatus, and
this interpretation is believed to be consistent with the specification which refers to the
automatic conversion of communication protocols, based on the needs of the system.

Claim 22 is objected to because it refers to "the to be configured electronic
apparatus" and this feature lacks proper antecedent basis.

Claim 24 is objected to because of its use of parenthesis, specifically, the use of
"PDA" appearing in parenthesis is not an acceptable means of further defining the
handheld device.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that
form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section

351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4.   Claims 13, 19-22 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Blackett et al., U.S. Patent Application Number US 2004/0138786 A1.

As per claims 13, 21 and 25, Blackett et al. teaches an intelligent electronic device (hereafter: IED) comprising:

-      a bus interface (i.e. inherent to Figure 8, wherein the relay is connected to the master meter using a Modbus protocol connection, such as RS232);

-      a control engine (Examiners Note: An "engine" is interpreted to be any hardware or software component which provides the claimed functionality) that comprises:

          -      an application specific engine (hereafter: ASE) that controls the IED independently of the communications protocol (i.e. "power management control functions" of the power meter or IED, Figure 4b element 405b); and

          -      a bus protocol specific engine (hereafter: BPSE) that transmits and receives data, via the bus interface, and which exchanges application specific data with the ASE (i.e. Figure 4b element 406) via a standardized interface (Examiners Note: in light of the applicants specification, [0021], the use of an object oriented environment is sufficient to contemplate the claimed standardized interface)(i.e. Figure 4b element 406 as well as Figure 8 in conjunction with [0079] and [0080]).

As per claim 25, Beckett et al. teaches a plurality of apparatuses, each of which is a sensor, an actuator or a controller, wherein each apparatus comprises the features listed above (i.e. [0081] and Figure 6).

As per claims 19-20, Blackett et al. teaches a set of elements that includes at least one of variables, methods, messages or events (i.e. [0079]).

As per claim 22, Blackett et al teaches the apparatus being utilized to configure devices connected to it (i.e. Abstract, "The architecture includes intelligent electronic devices with the capability to monitor and control attached slave devices …").

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackett et al., as applied to claim 13 above, in view of Jankins et al., U.S. Patent No. 6,272,400.

As per claim 14, Blackett et al. does not specifically teach a plurality of bus protocol specific engines wherein each engine is associated with a different bus protocol and wherein each bus protocol specific engine allows for the conversion of bus protocols to another bus protocol.

Jankins et al. teaches a network controller that utilizes a plurality of software drivers (i.e. engines) for allowing communications between a host and field devices (i.e. C8 L31-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Jankins et al into the system disclosed by Blackett et al for the purpose of allowing essentially a protocol independent network which has the affect of significantly reducing the difficulty of coordinating the use of components that operate under different communication protocols, thereby

achieving a system with greater flexibility and extendibility, and this would have been obvious to one of ordinary skill in the art at the time the invention was made.

As per claim 15, Blackett et al. in view of Jankins et al. (hereafter: Blackett's combined system) teaches the use of different bus interfaces for different communication protocols (i.e. See Jankins et al, C7 L44-55).

As per claim 16, Blackett's combined system teaches a feature wherein at least some of the bus protocol specific engines are associated with a single bus interface (i.e. See Jankins et al., C7 L44-49, "BitBus interface...") and a selection unit determines which bus specific protocol engine is implemented (i.e. See Jankins et al., Abstract, "A software driver is _selected_ from a library of drivers for communication ...")(emphasis added).

As per claims 17-18, with respect to an automatic selection of the communication protocol, the combined system of Blackett's inherently possesses the capability of performing this function by way of Jankins disclosing that a software driver is selected, based on an incoming signal, without requiring any further input from a user. This concept adequately contemplates the claimed "automatically".

7.   Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blackett et al., as applied to claim 21 above, in view of obviousness.

As per claims 23-24, although Blackett et al does not specifically teach the IED being a personal computer per se, it is an obvious variation of the disclosed system since the IED possesses all of the same features and performs all of the same functions that a personal computer would in order to implement the disclosed system, that is, it performs all of the communications functions, monitoring and controlling functions, as well as data analysis, data gathering and others. Therefore, the apparatus being specifically a personal computer is believed to be an obvious variation of the disclosed capabilities and or functions of the disclosed IED and for at least these reasons, the

inclusion of these aforementioned features and or capabilities into an actual personal computer, rather than the IED acting as a computer system would be a feature that would have been obvious to one of ordinary skill in the art at the time the invention was made.

8.   Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blackett et al., as applied to claim 25 above, in view of Jankins et al., U.S. Patent No. 6,272,400.

As per claim 26, Beckett's disclosed system does not specifically teach a feature wherein each bus protocol specific engine is associated with a single bus interface and a selection unit determines which bus specific protocol engine is implemented.

As per claim 26, Jankins et al. teaches a feature wherein at least some of the bus protocol specific engines are associated with a single bus interface (i.e. See Jankins et al., C7 L44-49, "BitBus interface...") and a selection unit determines which bus specific protocol engine is implemented (i.e. See Jankins et al., Abstract, "A software driver is *selected* from a library of drivers for communication ...")(emphasis added).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Jankins et al into the system disclosed by Blackett et al for the purpose of allowing essentially a protocol independent network which has the affect of significantly reducing the difficulty of coordinating the use of components that operate under different communication protocols, thereby achieving a system with greater flexibility and extendibility, and this would have been obvious to one of ordinary skill in the art at the time the invention was made.

Conclusion

9.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald D Hartman Jr. whose telephone number is (571) 272 - 3684. The examiner can normally be reached on Mon. - Fri., 10:00 am - 8:00 pm EST.
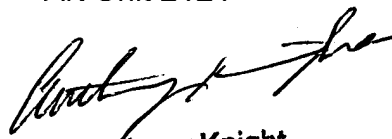
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached at (571) 272 - 3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronald D Hartman Jr.

Examiner

Art Unit 2121

Anthony Knight
upervisory Patent Examiner
Group 3600